Projects First-Round Winner

Innovations Challenge

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Prepared by Transportation Planning Missouri Department of Transportation

Ticket Cost Changeable Message Sign





Description

This innovation is a Changeable Message Sign with built in speed radar. In addition to posting the driver's speed, the CMS can display a corresponding message informing the motorists of the fine for that speed. The speed and corresponding fine changes as it detects passing vehicles. The message says "Speed 60 Fine May Be \$340". The minimum fine by Missouri law in a work zone with workers present is \$340. There is no automated ticketing, but it is telling speeding motorists how their actions could be translated into a fine. Drivers' fear of a monetary fine slowed them down more than the standard work zone speed signs and safety messages. The innovation was tested on two I-70 work zones in the St. Louis District during October and November 2016.

Benefit

In the past, MoDOT has used two separate signs to convey speed and safety messages in a work zone. Speed trailers that display the drivers speed costs \$7,000. Changeable message signs displaying safety information for work zones typically cost \$12,000. MoDOT's existing CMS can be upgraded to include speed radar for \$1,500, which saves the department money. MoDOT uses active enforcement primarily on interstates and as needed on other work zones with specific safety concerns. Active enforcement is effective but expensive and puts a burden on local law enforcement. MoDOT uses contracted off-duty law enforcement officers who receive time-and-a-half overtime pay for their work zone enforcement duties. Last year, MoDOT spent \$621,000 for work zone law enforcement. Also, law enforcement is not available for every work zone or may get called away for emergency response. By messaging drivers with the fine for speeding, there was more compliance to the work zone speed than without the cost message. By combining the costs of two signs and paying the upgrade charge, MoDOT saved \$5,500. Overall, the speed radar CMS saves money and improves safety in work zones.

Materials and Labor

No staff time with \$1.500 in materials.

For More Information Contact:

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Additional photos or videos can be seen by accessing the Innovations Challenge SharePoint page at: http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx.

